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Appl. No. 10/734,366
Amdt. dated October 31, 2007
Request for Continued Examination

PATENT**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

- 1-28 (Cancelled)
29. (New) A method for displaying contig-component relationships comprising:
- a. providing EST data from a plurality of EST source libraries wherein, the EST data comprises: ESTs, their library of origin, and their membership in an assembled contig;
 - b. providing a multi-dimensional display comprising a circular figure, wherein,
 - loci representing each source library comprising the plurality of EST source libraries, are distributed about the periphery of the circular figure;
 - c. assembling contigs by removing EST redundancy and aligning and clustering ESTs that comprise the plurality of EST source libraries, using an assembly algorithm;
 - d. plotting a symbol within the multidimensional display, corresponding an assembled contig, wherein
 - the symbol is positioned within the multidimensional display according to relative contributions of ESTs from each source library used to assemble the contig;
- thereby positioning the symbol corresponding the assembled contig within the multi-dimensional display, at a point within an area located between the loci representing the EST source libraries that contributed to assembly of the contig.

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30. (New) The method of Claim 29, wherein positioning the symbol corresponding to the assembled contig within the multidimensional display, is determined as a function of the number of source libraries which contributed at least one EST to the assembled contig.

31. (New) The method of Claim 29, wherein positioning the symbol corresponding to the assembled contig within the multidimensional display is determined as a function of the proportion of ESTs in the assembled contig that are contributed by each source library.

32. (New) The method of Claim 29, wherein positioning the symbol corresponding to the assembled contig within the multidimensional display is determined as a function of the number of ESTs in the assembled contig from a given source library relative to the total number of ESTs in the source library.

33. (New) The method of claim 29, wherein source libraries are members selected from the group consisting of source libraries comprising EST data from: a species, a cultivar, a tissue, a developmental stage, and a stress condition or a combination of such members.

34. (New) The method of claim 29, wherein the method is used to perform mock microarray analysis.

35. (New) The method of claim 29, wherein positioning the symbol corresponding to the assembled contig within the multidimensional display is influenced by the placement of the of the source libraries about the periphery of the circular figure.

36. (New) A computer program stored on a computer readable storage medium for displaying contig-component relationships, comprising:

- a. a receiving code segment;
- b. an assigning code segment; and
- c. a plotting code segment

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wherein the program causes a computer to:

- (i) utilize EST data from a plurality of EST source libraries to assemble contigs by removing EST redundancy and aligning and cluster ESTs comprising the plurality of EST source libraries using an assembly algorithm; and
- (ii) plot a symbol corresponding an assembled contig within a multidimensional display comprising a circular figure, wherein the symbol is positioned within the multidimensional display according to relative contributions of ESTs from each source library used to assemble the contig; thereby positioning the symbol corresponding the assembled contig within the multi-dimensional display, at a point within an area located between the loci representing the EST source libraries that contributed to assembly of the contig.